

CONFIDENTIAL

15 November 1955

MEMORANDUM FOR: Chief, TSS/APD
SUBJECT: Infrared Sources

1. HMX-1, MCAS, Quantico, has recently tested in cooperation with TSS/APD and TSS/WAD, two Army Corps of Engineers infrared light sources to determine the feasibility of infrared for use both as a night navigation system and for completely black helicopter night landings. It has been mutually agreed that infrared shows considerable promise for the above uses. However, a test of an infrared light source incorporating various desired qualities is needed to properly evaluate the concept.

2. It is therefore requested that TSS/APD initiate an investigation to determine time and costs for the development and delivery of five infrared sources for a test program at MCAS, Quantico, that incorporate the following specifications:

- a. Light weight for aircraft installation.
- b. Mounting — light weight and remote servo electro controlled.
- c. Horizontal movement — 120° (30° R and 90° L).
- d. Vertical movement — 100° (plus 10° and minus 90°).
- e. Beam angle — 2° to 40° or more.
- f. G load — plus 4 and minus 1.
- g. Q — dynamic loads up to 300 knots.
- h. Minimum range 10° beam — 1000 feet (with AN/SAR-4 viewer).
- i. Power requirements — 125 amps at 28 volts dc or less.
- j. Light sources — tungsten preferred over carbon arc.
- k. Continuous use — 15 hours.
- l. All weather capability.
- m. Ceiling — subject to discussion with contractor.

3. It is further requested that continuing liaison be maintained between TSS/WAD [redacted] and MCAS, Quantico. [redacted]
TSS/APD, is familiar with the above project.

25X1
25X1

JW/jeh

CONFIDENTIAL

Distribution:

- Orig & 1 - Addressee
1 - TSS/SRB
2 - TSS/WAD

25X1

25X1

~~SECRET~~